

APPENDIX M

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
(OAKLAND DIVISION)**

**IN RE: COLLEGE ATHLETE NIL
LITIGATION**

Case No. 4:20-cv-03919-CW

**DECLARATION OF DR. MICHAEL
CRAGG IN SUPPORT OF
OBJECTION TO SETTLEMENTS
ON BEHALF OF CLASSES OF
PAST, CURRENT AND FUTURE
NCAA COLLEGE ATHLETES**

Hon. Claudia Wilken

I. INTRODUCTION AND SUMMARY OF ARGUMENT

1. My name is Michael Cragg and I am a Senior Partner at Keystone Strategy, a consulting firm with offices in Boston, London, New York, San Francisco, and Seattle. I have a Ph.D. in economics from Stanford University. I was an economics professor at Columbia University and University of California, Los Angeles, where I published broadly and taught courses in corporate finance, financial markets generally, public sector economics, and microeconomics at both the undergraduate and graduate levels. Various foundations, including the National Bureau of Economic Research and the National Science Foundation, have sponsored my research.

2. Prior to joining Keystone Strategy, I was a Principal and Chairman of The Brattle Group. I also was a Managing Director of Cambridge Finance Partners, LLC and before that, I was a partner at the economic consulting firm Bates, White and Ballentine, a management consultant in the strategy practice at A.T. Kearney, and a Vice President at the economic consulting firm Analysis Group/Economics. I was also a Senior Economist at the Milken Institute, a “think tank” in Santa Monica, California that specialized in financial markets.

3. For over 25 years I have studied competition economics, financial markets, and the financial services sectors for the purposes of research, teaching, advising, and testifying. Several of my recent articles have received Antitrust Writing Award by Concurrences and the George Washington University Law School’s Competition Law Center. Antitrust case teams I led for the *Blue Cross/Blue Shield Multidistrict Litigation*, *US Airways v Sabre*, and *Epic v Google* were recognized by the American Antitrust Institute and *Global Competition Review* in their respective annual awards.

4. I have spoken at various conferences on competition issues. I have academic and professional experience on competition issues in platform matters, sports and entertainment, high tech and software markets, airline markets, pharmaceutical markets, medical devices, health insurance, health care providers, power and gas markets, payment systems, and financial and commodity markets. I have been recognized by *Who’s Who* and *Global Competition Review* as a leading competition expert. I have presented to the United States Department of Justice (“DOJ”) and the United States Federal Trade Commission (“FTC”) (hereafter, “the Agencies”) in merger

1 reviews. I have been qualified in Federal District Court and the United States Tax Court as an
2 expert in industrial organization and competition economics. My CV is attached as Appendix A.

3 5. I submit this declaration in support of the objections to the Proposed Settlement
4 (“Settlement”) on behalf of the proposed Damages Classes (“DCS”) and on behalf of a proposed
5 Injunctive Relief Class (“IRCS”) (*see* ECF No. 535-1 in *In re College Athlete NIL Litig.*, No. 4:20-
6 cv-03919 CW (N.D. Cal.)(all ECF references used herein will be to filings in this docket)) filed
7 by certain members of each of those Classes. My CV is attached as Appendix A.

8 6. The present case arises out of longstanding legal disputes over the compensation of college
9 athletes.¹ In particular, plaintiffs in cases over the last two decades have challenged rules created
10 by the National Collegiate Athletic Association (“NCAA”) that limit payments to Division I
11 college athletes. Among other claims, plaintiffs have argued that NCAA restrictions on
12 compensation to athletes constitute anticompetitive practices in violation of federal antitrust laws.
13 Such cases have raised legal questions about the use of college athletes’ name, image, and likeness
14 (“NIL”) payments used in marketing and branding, scholarships and other forms of aid, direct
15 payments to college athletes, and other issues related to compensation for the labor and services
16 college athletes provide.²

17 7. In response to ongoing litigation, specifically in *House v. NCAA* and *Carter v. NCAA*,³ the
18 NCAA and attorneys for the named plaintiffs in the class have negotiated a proposed Stipulation
19 and Settlement Agreement that purports to secure: (1) damages for scholar athletes harmed in the
20 past and (2) a ten-year agreement for injunctive relief that dictates how the NCAA and member
21 institutions will compensate college athletes going forward. On October 7, 2024, this Court granted
22 preliminary approval of the Settlement and provided an opportunity for notice to college athletes

23 ¹ *See generally* John T. Holden, Marc Edelman, and Michael McCann, “(Still) Anticompetitive
24 College Sports,” 66 Boston College Law Review __ (2025) (forthcoming).

25 ² *See id.*

26 ³ *House v. NCAA*, No. 4:20-CV-03919 (N.D. Cal. June 15, 2020); *Carter v. NCAA*, No. 3:23-
27 CV-06325 (N.D. Cal. Dec. 7, 2023). The classes in both cases have been consolidated for the
28 purposes of the Settlement.

1 who want to file claims and for objections to final approval of the Settlement from interested
2 parties.

3 8. Although the parties that participated in negotiating the Settlement—the NCAA and Class
4 Counsel—claim that it provides appropriate compensation to college athletes, an economic
5 analysis of the Settlement indicates otherwise. The proper standard for determining whether the
6 settlement is fair is whether it approximates the outcome of a free and competitive market for the
7 services of college athletes. In order to determine historical damages and the appropriate terms of
8 injunctive relief, it is necessary to calculate what compensation college athletes would have
9 received historically and what they can be expected to receive in the future but for the limits on
10 compensation imposed by the NCAA. As the plaintiffs’ damages expert, Dr. Daniel Rascher (“Dr.
11 Rascher”), maintains, the but-for compensation to college athletes in this case can best be
12 approximated by looking at the compensation in a comparable market—the market for
13 professional athletes.⁴ In professional sports, athletes share revenue approximately equally with
the sports leagues and teams.

14 9. An appropriate economic analysis of the Settlement reveals that college athletes receive
15 considerably less compensation under the Settlement, both in the form of damages and in terms of
16 injunctive relief, than they would in a but-for world:

- 17 • The IRCS allows Division I schools to share up to 22% of the revenue from Power
18 Five Conference schools’ athletic programs with students each year. The
19 justification provided for sharing 22% of revenues is that after also accounting for
20 scholarships and other transfers, college athletes are purported to receive 50% of
21 league revenues, in line with other professional sports leagues.⁵ However, this
22 calculation is misleading. It treats scholarships as direct compensation to college
23 athletes, when in fact scholarships to college athletes likely cost schools far less
24

25 ⁴ See paragraphs 82-87 of ECF No. 450-4.

26 ⁵ The Power 5 conferences are: the Atlantic Coast conference, the Big Ten Conference, the Big
27 12 Conference, the Pac-12 Conference, and the Southeastern Conference.

1 than their face value. The proposed revenue split actually allocates far more than
2 50% of league revenue to the NCAA and schools and less to students.

- 3 • The injunctive relief in the IRCS allows member institutions to decrease the
4 maximum amount they are permitted to pay students by the amount of students'
5 NIL earnings. Economically, compensation for students' athletic services should
6 be considered as a separate revenue stream from any sponsorship deals the students
7 are able to obtain.
- 8 • The injunctive relief sets a maximum share of revenue of 22% from Power Five
9 conferences' college athletic programs that member institutions can share with
10 college athletes each year. However, this sharing of revenue is a cap; no floor is
11 established for what member Division I institutions can pay to students.
- 12 • The DCS likely significantly underpays college athletes. This is because Dr.
13 Rascher's damages calculations ignore the best benchmark available for what
14 college athletes would have been paid for NIL: the amounts they actually have been
15 paid since 2021, when NIL payments became permitted. Very roughly, college
16 athletes have received around one billion dollars per year for the past three years.
17 Assuming college athletes earned one billion dollars every year from 2016 onward,
18 they would have earned an additional five billion dollars over the five years before
19 2021, significantly more than the \$1.976B agreed in the settlement for NIL
20 payments. This estimate is conservative, however, because it ignores the expected
21 growth in NIL payments. Accounting for the expected growth in NIL payments
22 from 2016 onward and the growth of NCAA revenue suggests college athletes
23 suffered damages of \$9.7B. Simply put, the DCS vastly underpays college athletes
24 for the damages suffered by preventing them from receiving NIL payments from
25 2016 onward.

24 **II. TERMS OF THE SETTLEMENT**

25 10. The Settlement proposes to compensate athletes in two ways: through damages for past
26 economic harms and through injunctive relief to prevent future similar harms.

11. With respect to damages for past harms, the DCS contemplates paying \$2.576 billion in damages to the classes of Division I college athletes who played between 2016 and 2024.⁶ This total amount represents \$1.976 billion for NIL damage claims and \$600 million for additional compensation (primarily athletic services claims) to college athletes.⁷

12. For forward-looking harms, the IRCS allows for new forms of compensation to athletes, including removing the cap on the number of scholarships awarded per sport; allowing NIL payments to athletes; and allowing direct payments by member institutions to athletes. That is, the IRCS allows, *but does not require*, Division I member institutions to provide new benefits to students up to a cap determined by a formula laid out in the Settlement agreement.⁸ Individual schools can do so by creating a “benefits pool” over and above existing scholarships and benefits.⁹ Dr. Rascher estimates this cap to be approximately \$23M per school, starting in the 2025-26 academic year and increasing over the ten-year term of the ICRS. Several items count as “offsets” against the benefits pool, meaning that they shrink the maximum amount member institutions may pay. For instance, new scholarships “count against the Pool;” a school that spends \$5M on new scholarships, for example, may only increase other compensation to college athletes by an additional \$18M.¹⁰ NIL payments to college athletes also count against the pool.¹¹

⁶ Because certain college sports generate much more revenue than others, the classes are broken down by type of athletes. There is one class that represents athletes competing in men’s football and basketball from June 15, 2016 through Sept. 15, 2024; another representing women’s basketball players during the same period; and a third class representing all other college athletes not included in the first two classes.

⁷ See ECF No. 450 at 8. As the motion notes, this settlement is for less than the full value of the damages to the plaintiffs in the case. Plaintiffs’ attorneys estimate that the Settlement represents 67.4% of the NIL damages and 31.6% of the athletic service damages.

⁸ This cap represents “direct benefits worth up to 22% of the Power Five schools’ average athletic revenues each year.” See ECF No. 450 at 8.

⁹ ICRS Article 3, section 1(a) (ECF No. 535-1 at pdf page 61).

¹⁰ *Id.*, Article 3, section 3(b) ECF No. 535-1 at pdf page 61.

¹¹ *Id.*

1 **III. THE INJUNCTIVE RELIEF PROVIDED BY THE IRCS IS INADEQUATE**

2 13. Class Counsel rely on the analysis of Dr. Rascher to argue that under the terms of the
3 injunctive portion of the Settlement, “college athletes will earn the same percentage of revenues
4 as professional athletes in the NFL, NBA, and other professional leagues.”¹² Dr. Rascher’s
5 analysis occupies 3-1/4 pages of his report and relies extensively on assumptions given to him by
6 Class Counsel.¹³ His argument is misleading for the several reasons enumerated below.

7 14. Dr. Rascher arrives at his conclusion that college athletes will share revenue roughly
8 equally with the NCAA and member institutions as outlined in his Exhibit 26 and the
9 accompanying explanation. As that exhibit shows, he compares his projection of Division I
10 revenue for the 2025-26 academic year (\$10,938M) with projected compensation to athletes,
11 including scholarships (or grants-in-aid) of \$3,519M, medical benefits of \$264M, *Alston* benefits
12 of \$71M, and Student Assistant Fund benefits of \$89M. As discussed further below, Dr. Rascher
13 argues that competition for college athletes among member institutions will lead schools to spend
the full amount of their benefits pool on additional compensation of \$1,618M.¹⁴

14 **A. THE SETTLEMENT INAPPROPRIATELY CONSIDERS EXISTING** 15 **SCHOLARSHIPS AND BENEFITS TO BE DIRECT COMPENSATION** 16 **TO STUDENTS**

17 **1. It costs relatively little for colleges to offer grant-in-aid scholarships** 18 **Grant-In-Aid scholarships (“GIAs”) to college athletes.**

19 15. College athletes represent a small share of student bodies. In the 2023-24 season, the
20 NCAA reported that 2.5% of the students at Division I schools were college athletes who received
some level of academic aid.¹⁵ Therefore, colleges are unlikely to need to increase their capacity--

21 ¹² See ECF No. 450 at 22.

22 ¹³ ECF No. 450-4 at 35-38.

23 ¹⁴ In paragraph 87 of his declaration, Dr. Rascher assumes that “[a]dding compensation that will
24 be allowed under the injunctive settlement equal to the entire Pool amount . . . would be
25 economically reasonable to expect due to competition.” ECF No. 450-4 at 38. As discussed later,
he provides no evidence, nor economic rationale for this assumption.

26 ¹⁵ The NCAA reported that 4.3% of the Division I student body participated in sports and 59% of
27 those received some academic aid, implying 2.5% (=4.3% * 59%) of the student body received

1 for instance, by offering additional courses or by hiring more instructors--to enroll college athletes.
2 If colleges do not need to increase their capacity to enroll college athletes and if college athletes
3 do not take the place of paying non-athletes, then the marginal cost of providing education to
4 college athletes is low.

5 16. Researchers have recognized the issue of how colleges account for scholarships for college
6 athletes. One author writes:

7 The basic conundrum here is that some schools count the value of the GIA
8 at full tuition and room and board, when the marginal tuition cost may be
9 negligible. If a school has empty beds in its dormitories, the marginal cost
10 of filling such a bed with an athlete is trivial. If that athlete attends classes,
11 there is no additional instructional cost, and the athlete is sleeping in a bed
12 that would otherwise be empty. The athletics department might record the
operating cost associated with this athlete's GIA at its full nominal value,
say \$35,000, while the actual incremental cost to the school might be closer
to \$5,000 or \$10,000.¹⁶

13 17. There is evidence that the incremental cost for a college to enroll an additional student is
14 low.

15 18. *First*, academic evidence suggests that most colleges exhibit economies of scale, implying
16 that the incremental cost of enrolling an additional student is lower than the average cost.¹⁷ One
17 study models the economic costs of educating students in a large public university, focusing on
18

19 _____
20 academic aid. "NCAA Recruiting Facts," accessed November 6, 2024,
https://ncaaorg.s3.amazonaws.com/compliance/recruiting/NCAA_RecruitingFactSheet.pdf.

21 ¹⁶ Andrew Zimbalist, "Dollar Dilemmas During the Downturn: A Financial Crossroads for
22 College Sports," 3 *Journal of Intercollegiate Sport* (2010): 111-124.

23 ¹⁷ See, e.g., Liang-Cheng Zhang and Andrew C. Worthington, "Explaining estimated economies
24 of scale and scope in higher education: A meta-regression analysis," 59 *Research in Higher*
25 *Education* (2018): 156-173. Zhang and Worthington perform a meta-analysis of 39 studies of
26 economies of scale for colleges, comprising 49 observations, of which 33 (67%) show
economies of scale. *Id.*, Table 2. Note that most research compares costs between schools to try
to infer economies of scale. However, due to idiosyncrasies of each school, this may muddle the
cost of a single school enrolling one additional student.

1 how incremental enrollments impact faculty and institutional decision-making.¹⁸ The study
2 focuses on graduate students and finds that there is no significant relationship between the number
3 of graduate students enrolled and the number of courses offered in most departments, which is a
4 measure of the variable costs incurred by the university. Similarly, the advising loads for faculty
5 (another cost measure) vary substantially from year to year, depending on factors such as the
6 availability of research grants and faculty preferences, rather than varying by fixed per-student
7 costs. The study concludes that “faculty in well-established departments already teaching a large
8 variety of courses face only modest costs of additional classroom enrollments.”¹⁹

9 19. Additional evidence suggests that colleges exhibit higher average costs than incremental
10 costs. A study of the breakdown of college costs found that nearly half of spending is on overhead,
11 which is fixed with the number of students enrolled.²⁰

12 20. *Second*, there is evidence that some colleges are not operating at full capacity. Some
13 schools have performed utilization studies to measure to what extent their classrooms and courses
14 are filled and found they are underutilized. For example, a study at the University of California
15 found that of the nine colleges part of the University, five had utilization below target (ranging
16 from 69% of the target utilization to 91% of target), three had utilization around target (97% to
17 104%), and only one had utilization significantly above target (111%).²¹ A 2019 study at
18 University of Oregon found that from 2012 to 2019, the seat utilization (percentage of each

19 ¹⁸ Stephen A. Hoenack *et al.*, “The marginal costs of instruction,” 24 *Research in Higher*
20 *Education* (1986): 335-417.

21 ¹⁹ *Id.*

22 ²⁰ See Rita Kirshstein and Jane Wellman, “Technology and the Broken Higher Education Cost
23 Model: Insights from the Delta Cost Project,” *Educause* (Sept 5, 2012), accessed October 30,
24 2024, <https://er.educause.edu/articles/2012/9/technology-and-the-broken-higher-education-cost-model-insights-from-the-delta-cost-project>.

25 ²¹ See University of California, “Classroom and Teaching Lab Utilization Report,” November
26 2017, p. 6, Table U-1C, accessed November 6, 2024, [https://www.ucop.edu/operating-](https://www.ucop.edu/operating-budget/_files/legreports/17-18/UCClassroomandTeachingLabUtilizationReportFall2016.pdf)
27 [budget/_files/legreports/17-18/UCClassroomandTeachingLabUtilizationReportFall2016.pdf](https://www.ucop.edu/operating-budget/_files/legreports/17-18/UCClassroomandTeachingLabUtilizationReportFall2016.pdf).

classroom's stations occupied) was 58% to 66%, always below its target of 67%.²² A study by the Utah System of Higher Education similarly found that their classroom utilization often fell short of target.²³

21. In addition to current evidence that some schools are below capacity, colleges in the United States have been bracing for an "enrollment cliff." Based on demographic trends, researchers have predicted that enrollment will drop significantly at U.S. colleges starting in 2025.²⁴ Figure 1 below demonstrates this trend.²⁵

22. The evidence of current excess capacity and the expectation of reduced enrollment suggests that at least some schools can enroll college athletes with minimal incremental costs and will continue to be able to do so.

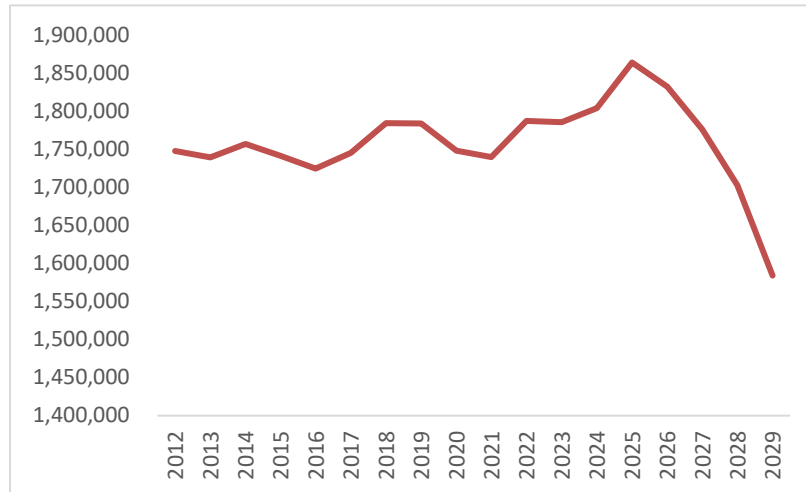
²² See Office of Campus Planning, Classroom Utilization Report Fall Term 2019, *University of Oregon*, accessed November 6, 2024, https://cpfm.uoregon.edu/sites/default/files/fall_19_classroom_utilization_study_final.pdf.

²³ See Malin Francis, "Utah System of Higher Education—Space Utilization Report, 2019-20," March 2021, p. 6 (Figure entitled "USHE Main Campus Seat Occupancy"), accessed November 6, 2024, https://ushe.edu/wp-content/uploads/pdf/reports/general_report/2021/2019-20_USHE_Utilization_Report.pdf.

²⁴ See, for example, Anthony Schuette, "Navigating the Enrollment Cliff in Higher Education," *Trellis Company Report Brief* (June 2023), accessed November 6, 2024, <https://files.eric.ed.gov/fulltext/ED628984.pdf>.

²⁵ This graph is based on data underlying Nathan D. Grawe, "Demographics and the Demand for Higher Education," accessed November 6, 2024, <https://ngrawe.sites.carleton.edu/demographics-and-the-demand-for-higher-education/2/>. The data is available in Grawe's Excel "Projection file" regarding HEDI projections, which he links to near the top of the web page.

Figure 1. Actual and forecasted number of students enrolling in 4-year U.S. university programs, by year of high school graduation.



23. *Third*, the average cost to supply education to a college athlete is lower compared to a non-college-athlete, making the gap between an athlete's GIA and the incremental cost to supply education even larger. Studies have found that different programs cost colleges different amounts to service. Hemelt *et al.* (2021) looked at the average instructional cost incurred by colleges by field and found that some fields, such as engineering and nursing, were nearly twice as costly as others, such as sociology and communication.²⁶ The NCAA reports the distribution of fields that college athletes major in broken down by the student-athlete's sport and compared to the general student body.²⁷ Combining the NCAA data with Hemelt *et al.* (2021) cost data by field shows that the costs to supply education to college athletes from the football, men's and women's basketball teams – which generated the majority of NCAA revenue – are 12-20% lower than the cost to supply education to the average student.²⁸

²⁶ See Steven Hemelt *et al.*, "Why is Math Cheaper Than English? Understanding Cost Differences in Higher Education," 39 *Journal of Labor Economics* (2021), 397-435.

²⁷ "DI Student-Athletes Degrees by Sport, 2021-2022," *NCAA*, accessed November 7, 2024, <https://www.ncaa.org/sports/2018/5/15/division-i-diploma-dashboard.aspx>.

²⁸ Appendix B explains the underlying analysis for this conclusion in further detail.

24. Read together, these findings show that enrolling an additional student costs many institutions much less than the full tuition rate.

2. GIAs should not be counted as compensation for college athletes; doing so grants the league and schools a much greater share of the revenue.

25. Given the low marginal costs of educating additional college athletes, a school that offers its athletes scholarships is providing something that costs the school little; the “sticker price” for tuition reflects the willingness to pay by families, including some very wealthy families, for their children’s education. In contrast, college athletes’ unique athletic prowess means they can effectively bargain to receive scholarships for less than the scholarships’ face values.

26. This conclusion is supported by an example that illustrates how the proposed Settlement gives the NCAA and schools more than 51% of projected Division I revenue. Suppose that the projections for NCAA revenue in 2025-26 are realized. Then, the NCAA and schools will collect \$10.9B in revenue and pay college athletes at most \$1.6B for athletic services. In addition, schools grant \$3.5B in GIA scholarships. If (a) the true cost to the schools to provide scholarships for those additional college athletes is \$3.5B, and (b) schools pay out the maximum amount of \$1.6B for athletic services, then the net revenue that the NCAA and schools would receive would indeed be 51% of total revenue.

27. However, if the true cost to the schools to provide scholarships to college athletes is less than \$3.5B, then the NCAA and schools will earn more than 51% of revenue. For instance, imagine the incremental cost of providing education to college athletes is only half of the face value of the scholarships, *i.e.*, \$1.75B. Then the NCAA and schools would earn \$7.55B in revenue, 69% of all revenue. This share of revenue would only increase if the NCAA and schools do not pay out the maximum allowable fees for athletic services.

28. Another term of the ICRS tips revenues further in favor of the NCAA and schools. The ICRS states that any newly created student scholarship payments will count against the Benefits Pool the settlement establishes.²⁹ That is, for every additional dollar of new lines of scholarships that schools create, they get to reduce the amount they pay out for athletic services by one dollar.

²⁹ ECF No. 535-1 at pdf page 66.

3. If GIAs were truly fungible with shared revenue, schools could share 50% of revenue, remove GIAs and both college athletes and schools would be as well off as in the ICRS.

29. As the foregoing discussion suggests, from an economic point of view, scholarships are not the same as revenue sharing. To illustrate this point more clearly, imagine designing a system of revenue-sharing with the goal of ensuring that students share the revenue generated by athletics approximately equally with their schools. In designing such a system, there are two possible revenue sharing structures to consider.

30. The first revenue-sharing structure is a system akin to the proposed IRCS. Each school is permitted to offer a menu of compensation to students that includes tuition, room, board, *Alston* benefits for academic achievements, medical care, and payments for athletic services, with two restrictions: payments for athletic services must not exceed 22% of total revenue, and total compensation to college athletes must not exceed 50% of total revenue.

31. In the second revenue-sharing structure, schools offer each college athlete cash equal to 50% of athletic revenue and no other services. With cash in hand, students can then decide to pay for tuition, room, and board out of their cash awards, as they choose.

32. College athletes are no worse off and only potentially better off under the second structure. If GIA scholarship payments truly are fungible with revenue as the ICRS presumes, then the two structures will generate equivalent outcomes for both students and schools, *i.e.*, both students and schools should be indifferent between the structures.

33. However, consider the likely outcome under the second structure. While under no obligation to provide scholarships, schools would still have an economic incentive to do so, as long as the marginal cost of the scholarship to the college is less than 50% of the marginal revenue that student's athletic performance brings in. That is, if it is cheap for a school to offer a scholarship to a student, yet the student values the scholarship highly, it is likely schools would offer scholarships to attract college athletes. For example, a school might decide to offer a star high school basketball player a scholarship as an inducement to coming to that school even in the presence of a straight 50-50 cash revenue split. That is because squeezing an extra student into a

1 classroom may cost a school much less than the potential revenue that star player can generate,
2 50% of which goes into the school's pocket.

3 34. The arguments above show that GIA scholarships should not be considered income to
4 college athletes and are not fungible with revenue-sharing. Treating GIA scholarships as fungible
5 with revenue-sharing only benefits the NCAA and schools, who will end up earning a greater share
6 of revenue. Also note that the Internal Revenue Service does not treat scholarships as income, a
7 fact that supports the conclusion that GIA scholarships should not be treated as compensation.

8 35. Counting scholarships at list price rather than their cost has another effect for student-
9 athletes: it further incentivizes schools to prioritize student athletes in sports that generate the most
10 revenue. Student athletes in "non-revenue sports" – everything other than basketball and football
11 – have already complained that the IRCS proposal will cut scholarships and roster spots for them.³⁰
12 If schools count scholarships at list price as revenue for student athletes, then if a school offers a
13 scholarship to a student in a non-revenue sport, it reduces the school's available pool of revenue
14 to share with student athletes considerably. If, instead, schools accounted for scholarships at the
15 cost of providing education, providing a scholarship to a student athlete in a non-revenue sport
16 would bear a much smaller opportunity cost for the school, increasing the incentive for schools to
provide scholarships to student athletes in non-revenue sports.

17 **B. THE IRCS' PROPOSAL TO OFFSET PAYMENTS FOR ATHLETIC**
18 **SERVICES WITH PAYMENTS FOR NIL LEAVES STUDENTS WORSE**
OFF AND HAS NO BASIS IN ECONOMICS

19 **1. Professional sports leagues do not offset revenue-sharing with**
20 **sponsorship payments.**

21 36. Professional athletes get two distinct streams of compensation: revenue-sharing and NIL
22 payments. In the National Basketball Association ("NBA"), for example, players receive salaries,
23 which give them a share of NBA revenue, and sponsorship deals, which are separate from and
24 outside the scope of their contracts with the NBA. For the 2022-23 NBA season, for instance,

25 ³⁰ Ross Dellenger, "Historic House-NCAA settlement leaving hundreds of Olympic sport
26 athletes in peril," *Yahoo! Sports*, accessed December 2, 2024, [https://sports.yahoo.com/historic-](https://sports.yahoo.com/historic-house-ncaa-settlement-leaving-hundreds-of-olympic-sport-athletes-in-peril-125238713.html)
27 [house-ncaa-settlement-leaving-hundreds-of-olympic-sport-athletes-in-peril-125238713.html](https://sports.yahoo.com/historic-house-ncaa-settlement-leaving-hundreds-of-olympic-sport-athletes-in-peril-125238713.html)

1 players earned a total of \$4.53B in cash salaries, with the median salary being \$4.6M.³¹ At the
 2 same time, players received sponsorship deals worth an estimated \$1.66B.³² For NBA players
 3 during this period, therefore, sponsorship deals comprised an additional 36% in compensation for
 4 athletes over and above the revenue-sharing represented by their salaries.

5 **2. College athletes generate entirely separate sources of value from their**
 6 **brand and their athletic abilities; there is no economic rationale for**
 7 **one source of value to limit payments to the other.**

8 37. College athletes should have the property rights over their brands that state laws allow them
 9 and be able to exploit those rights how they choose. Separately, college athletes can supply their
 10 labor for athletic services and can be compensated for those services. A tenet of economics is that
 11 clear property rights help efficiently allocate resources: resource owners (in this case, college
 12 athletes) can sell their resources (both brand and athletic ability) to the highest-value use.³³

13 38. Indeed, there is no economic basis for entangling college athletes' earnings from the
 14 intellectual property rights in their brands with revenue from their labor as athletes. In fact, in
 15 calculating damages for the three settlement damage classes, Dr. Rascher himself carefully
 16 distinguishes between damages from NIL and from athletic services.³⁴

17 39. This makes sense. In the United States economy, celebrities' income from work they do on
 18 the field or on a film set is compensated in a different way than are endorsement deals for their

19 ³¹ "NBA Salary Rankings," *Spotrac*, accessed November 4, 2024,
 20 https://www.spotrac.com/nba/rankings/player/_/year/2022/sort/cap_total.

21 ³² Mike Ozanian, "NBA Sponsorship Revenue Hits Record \$1.66 Billion," *Forbes*, accessed
 22 November 4, 2024, <https://www.forbes.com/sites/mikeozanian/2023/10/16/nba-sponsorship-revenue-hits-record-166-billion/>.

23 ³³ *See, e.g.*, Sebastian Galiani and Ernesto Schargrodsky, "Land Property Rights and Resource
 24 Allocation", 54 *Journal of Law and Economics*, (November 2011), pp. S329-S345 ("Well-
 25 defined property rights fundamentally improve resource allocation and increase investment in a
 26 given society by limiting expropriation and facilitating market transactions. Indeed, economic
 27 growth will occur only if property rights make it worthwhile to undertake socially productive
 28 activities. . . .").

³⁴ ECF No. 450-4 at pdf page 29.

1 name, image, and likeness. The proposed entanglement of of income from athletes' intellectual
 2 property rights with the income they earn from their labor on the field is tantamount to the
 3 Wimbledon tennis tournament reducing the amount of Serena Williams' prize money for winning
 4 the tournament by the amount she earned from advertisements, or offsetting the money Brad Pitt
 5 makes through backend points (or percentage of box office sales) by his earnings from a Chanel
 6 No. 5 advertisement.

7 40. The amount of compensation a celebrity can earn from endorsements can be significant.
 8 For instance, in the 2022-23 season, Lebron James earned \$44.5M on court and \$75M in
 9 endorsements.³⁵ And these numbers can be more extreme. In 2024, Shohei Ohtani earned \$2M
 10 per year in cash, \$68M deferred to 2034, and almost \$100M in endorsements.³⁶

11 **3. NIL offsets will create perverse incentives for schools.**

12 41. Under the proposed NIL offset system contained in the IRCS, every additional dollar that
 13 college athletes receive in NIL payments becomes one fewer dollar that a school is permitted to
 14 spend on its college athletes. Imagine a school were planning to pay its college athletes the full
 15 \$23M of the benefits pool in 2024-25, but then a handful of top college athletes received NIL
 16 sponsorship amounting to \$6M. The school now would only be able to pay its athletes a maximum
 17 of \$15M. The \$6M in reduced payment for athletic services will either (a) come out of the
 18 compensation of the college athletes who received the sponsorships, in which case the school is
 19 effectively appropriating the NIL payment from students for themselves, or (b) come out of the
 20 salaries of all college athletes, implying that a player who does not receive a sponsorship deal is
 21 worse off because her teammate received a large deal. This is an externality: athlete A has no
 22 control over athlete B's choice or ability to get a sponsorship deal, yet athlete A is impacted by
 23 B's choice. The proposed settlement may generate many such externalities, including externalities

24 ³⁵ Kurt Badenhausen, "NBA's Highest-Paid Players: LeBron, Curry, KD to Earn Combined
 25 \$300M in 2022-23," *Sportico*, accessed November 4, 2024,
 26 <https://www.sportico.com/leagues/basketball/2022/nbas-highest-paid-players-lebron-curry-kd-300m-in-2022-23-1234691281/>.

27 ³⁶ Joseph Zucker, "MLB Rumors: Shohei Ohtani Nears \$100M Annually in Endorsements After
 28 Dodgers Contract," *Bleacher Report*, July 22, 2024, accessed November 7, 2024,
<https://bleacherreport.com/articles/10129131-mlb-rumors-shohei-ohtani-nears-100m-annually-in-endorsements-after-dodgers-contract>.

1 that revenue generating sports have on non-revenue generating sports, which could be worse off
2 as a result of the settlement.³⁷

3 **4. College athletes will be worse off if NIL offsets are allowed.**

4 42. In addition to distorting incentives for individual schools, the NIL offset system allows
5 collegiate sports as a whole to sidestep the revenue-sharing arrangement the IRCS purports to
6 create.

7 43. To understand this point, recall that Dr. Rascher estimates that additional compensation to
8 college athletes under the terms of the IRCS in 2024-25 will amount to \$1.618B. Given the terms
9 of the IRCS, the schools and the NCAA are effectively conceding that they should share revenue
10 with students to the tune of up to \$1.6B. But if sponsors are also willing to offer \$1.6B in NIL
11 payments to students, the schools will not be able to provide additional compensation to students.
12 The IRCS is structured so that revenue-sharing by schools and the NCAA is regulated by a one-
13 way ratchet. Third-party NIL payments to college athletes ratchet down schools' maximum
14 permitted compensation to students, ensuring that schools pay at most \$1.6B.

14 **C. THE IRCS' PROPOSED COMPENSATION TO STUDENTS ACTS AS A
15 CAP, NOT A FLOOR**

16 44. As noted above, the injunctive portion of the Settlement permits but does not require
17 schools to (1) continue compensation at the level the NCAA currently allows and (2) provide
18 student athletes with additional compensation via a benefits pool. In this sense, Dr. Rascher's
19 argument that the IRCS represents equal revenue sharing between the NCAA and schools on the
20 one hand and students is fundamentally flawed.

21 45. With respect to the first point regarding existing levels of compensation, Dr. Rascher
22 calculates that "compensation already allowed" under NCAA rules is projected to be \$3.943B in
23 2025-26.³⁸ His implicit argument is that this level of support will continue for the ten-year term of

24 ³⁷ Goodbread, Chase, "Team USA in peril? The Olympic dangers lurking in college sports'
25 transformative change." *USA Today*, August 9, 2024, access November 11, 2024,
26 <https://www.usatoday.com/story/sports/olympics/2024/08/09/ncaa-revenue-sharing-impact-team-usa-olympics/74716014007/>

27 ³⁸ ECF No. 450-4 at pdf page 39.

the Settlement. However, there is nothing in the IRCS that requires that to be the case. The Settlement explicitly notes that schools and conferences can choose to reduce the amount of compensation under existing NCAA rules.

46. Furthermore, with respect to the additional payments to athletes via the Settlement's benefits pool, Dr. Rascher maintains that schools will likely distribute the full value of the additional compensation represented by the benefits pool, up to his estimated \$1.618B in 2025-2026. First, Dr. Rascher provides no basis – neither evidence nor economic reasoning – for concluding that schools will likely distribute the full value of compensation. Indeed, such a conclusion appears to be an assumption Dr. Rascher makes, rather than a conclusion he reaches from economic analysis. Economic theory suggests that schools would be willing to pay for student-athletes provided the incremental revenue they generate for the school exceeds the cost of compensating them. It is not at all clear whether schools would distribute the full value of allowed compensation based on this incentive or something less, and Dr. Rascher has provided no support why he believes schools would pay the full value. Second, it is unlikely that smaller Division I schools with more limited resources would be in a position to spend up to the full \$23M cap per school. And many Ivy League schools are expected to opt-out of sharing revenue with college athletes beyond grants-in-aid.³⁹ As noted above, if a significant number of member institutions spend less than the full amount of the benefits pool permitted them, the schools will end up retaining more than half of the revenue from athletics.

47. Since the IRCS has two caps on the amount of revenue to share with students – one cap on the share of revenue and one on the absolute level of revenue – in many instances students will receive less than 51% of school and NCAA revenue. Recall how Dr. Rascher determined that

³⁹ Alex Lawson, "College Athletes' Attorney Rebuffs NIL Settlement Critics," *Law360*, accessed November 4, 2024, <https://www.law360.com/articles/2255412/college-athletes-attorney-rebuffs-nil-settlement-critics>. See also Max J. Krupnick, "The End of the Ivy League? How changes in college sports affect the Crimson," *Harvard Magazine*, November-December 2024, accessed November 4, 2024, <https://www.harvardmagazine.com/2024/11/nil-harvard-ivy-league> ("No Ivy school is directly paying players, and none have NIL collectives.") As the article discusses if Ivy League schools continue this policy, college athletes may sidestep the Ivy League altogether. As one authority in the article notes, Harvard athletes are "forgoing full scholarship opportunities and paying for the privilege"

1 students should receive 22% of revenues: he started with the goal of having students earn 51% of
2 revenues and deducted compensation he claimed they were already receiving. However, in
3 addition to the 22% cap, there is also a monetary cap, which starts at an estimate \$23M per school
4 in 2025-26; the binding cap is the lower of the two. For the top earning schools, 22% of revenue
5 will be larger than \$23M, so they will be limited to pay \$23M of revenue to students, which can
6 be considerably less than 22% of revenue.

7 48. For instance, one analysis of estimated revenue sharing shows that for the top earning
8 school, Ohio State, is expected to earn \$187M in athletic revenue in 2025, 22% of which is \$41M.⁴⁰
9 Meanwhile, the analysis estimates that the absolute cap on spending will be \$20.5M for each
10 school in the 2025-26 season. Therefore, Ohio State would pay out \$20.5M, or 11% of revenue.
11 That is, even if one treated GIA as compensation – which one shouldn’t, as I describe above –
12 students at Ohio State would still earn at most 40% of school and league revenue, not the 51% Dr.
13 Rascher claims. For the top 29 schools, it is expected that 22% of revenue will exceed the absolute
14 cap, i.e., students will receive less than 51% revenues, even assuming schools pay out at the entire
15 cap and treating GIA as compensation.

16 49. In this sense, Dr. Rascher’s argument that the IRCS represents equal revenue sharing
17 between the NCAA and schools on the one hand and students is a best-case scenario. His
18 contention that athlete compensation under the settlement will represent approximately 51% of
19 school and NCAA revenue rests on two assumptions: (1) schools will not reduce NCAA benefits
20 that are currently allowed (even though the IRCS permits them to) and (2) schools will add
21 compensation “equal to the entire Pool amount” that schools can pay. Neither of these assumptions
22 is certain to occur.
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26 ⁴⁰ See Estimated Athlete Revenue Sharing by NCAA I School 2025-26 from “NCAA Athlete
27 Revenue Sharing, Scholarships & NIL Collectives by School.” Available at <https://nil-ncaa.com/>

IV. THE PROPOSED DCS SEVERELY UNDERPAYS FORMER COLLEGE ATHLETES

A. THE ESTIMATES OF NIL DAMAGES USED IN THE DCS IS AT ODDS WITH THE REALITY OF NIL COLLECTIVE PAYMENTS

1. The publicly available settlement documents provide no basis for his damage estimates.

50. Dr. Rascher reports that across the three settlement damage classes, he estimates damages of \$2.933B in NIL compensation between June 1, 2016, and September 15, 2024.⁴¹ The DCS provides for compensation of \$1.976B, which is 67.4% of Dr. Rascher's estimate.

51. However, Dr. Rascher's declaration in support of approval does not describe his methodology nor provide support for how he reached the \$2.933B estimate. Instead, it incorporates by reference the types and amounts of NIL damages that he determined in his prior reports in the *House* litigation. Dr. Rascher then adjusts his prior, non-public calculations to account for the differences in the makeup of the DCS classes as compared to the *House* classes.

2. The stream of NIL payments that has occurred since 2021 are a much more likely reflection of payments in a but-for world starting in 2016 absent NCAA's restrictions.

52. In June of 2021, the NCAA adopted an interim policy that essentially allowed athletes at all schools to receive NIL payments. Since that time, college athletes have seen rapid growth in NIL compensation.

53. From 2021-24, college athletes earned an estimated \$3.2B in NIL payments. Dr. Rascher estimates that college athletes could have earned an additional \$2.933B from 2016-2024 had the NCAA's NIL restrictions not been in place.

54. His calculations overlook the fact that NIL payments would likely have commenced earlier than 2021, but for the NCAA's restrictions. Had NIL payments begun in 2016 in this but-for world, they likely would have seen rapid growth similar to what actually took place starting in 2021. In short, a simple, data-driven way to estimate damages is to observe actual NIL payments since 2021

⁴¹ ECF No. 450 at 17.

1 and project how NIL payments likely would have evolved from 2016 onward had the NCAA
2 restrictions not been in place.

3 55. Dr. Rascher acknowledges the utility of a similar methodology to measure NIL damages
4 but fails to apply it. In his 2022 report, Dr. Rascher discusses the July 1, 2021 suspension of
5 restrictions on NIL payments constitutes a “natural experiment.”⁴² He goes on to conclude that

6 This natural experiment presents the Court with uncommonly strong Direct
7 Effects evidence that the third-party restriction in the Prior NIL Rules had
8 significant anticompetitive effects on each of the proposed classes and that
9 the partial relaxation of that anticompetitive restraint has led to an increase
10 in commerce, i.e., output growth, which benefitted each of the proposed
11 classes.⁴³

12 56. Despite acknowledging that the July 1 policy change represents a natural experiment, Dr.
13 Rascher does not leverage it in his 2022 report or future reports to measure damage from lost NIL
14 payments prior to 2021.

15 57. In 2021-22, the first year the NCAA allowed them to receive NIL payments, college
16 athletes earned an estimated \$917M in NIL payments. For the purpose of calculating damages for
17 the three settlement classes in the but-for world where the NCAA did not limit college athletes’
18 NIL compensation, suppose the first year of NIL payments to student athletes had been 2016-17
19 instead. In that case, we would assume college athletes would have earned \$917M in 2016-17,
20 subject to an adjustment. I assume that NIL payments would scale proportionately with the size of
21 NCAA revenues, since more revenues for the league represents more interest in college sports,
22 making promotions from college athletes more appealing to advertisers. To adjust for this, I scale
23 counterfactual NIL payments by the ratio of NCAA Power 5 revenue in the year the NIL payments
24 were earned in the real world with Power 5 revenue in the reference year when the NIL payments
25 would be earned in the counterfactual. For example, in 2021-22 when student athletes earned \$917
26 million in NIL payments, revenue for Power 5 schools was an estimated \$6.27 billion. In 2016-17,
27 Power 5 revenue was \$5.15 billion, 82% of the revenue in 2021-22. So if student athletes started

28 ⁴² Expert Report of Daniel Rascher, October 21, 2022. p.18

⁴³ Expert Report of Daniel Rascher, October 21, 2022. p.19

1 earning NIL payments in 2016-17, I expect they would have earned 82% of what they earned in
2 2021-22; that is, \$753 million (= \$917 million * 82%).⁴⁴

3 58. Using a similar approach for subsequent years, one can calculate total NIL payments we
4 expect college athletes would have earned from 2016-2024.

5 59. The table below provides an estimate of damages where projected unadjusted NIL
6 payments plateau at the current projections for payments in the 2025-26 season, according to
7 Opendorse, the leading source of information on NIL payments.⁴⁵

8 **Table 1. Annual Damages⁴⁶**

Year	NIL Payments	Counter-factual NIL Payment (Unadjusted)	Counter-factual NIL Payment (Adjusted)	Damages
2016-17	\$0	\$917,000,000	\$753,707,157	\$753,707,157
2017-18	\$0	\$1,140,000,000	\$936,996,902	\$936,996,902
2018-19	\$0	\$1,170,000,000	\$961,654,715	\$961,654,715
2019-20	\$0	\$1,670,000,000	\$1,372,618,268	\$1,372,618,268
2020-21	\$0	\$2,550,000,000	\$2,095,914,122	\$2,095,914,122
2021-22	\$917,000,000	\$2,550,000,000	\$2,179,750,687	\$1,262,750,687
2022-23	\$1,140,000,000	\$2,550,000,000	\$2,266,940,715	\$1,126,940,715
2023-24	\$1,170,000,000	\$2,550,000,000	\$2,357,618,343	\$1,187,618,343
2024-25	\$1,670,000,000	NA	NA	NA
2025-26	\$2,550,000,000	NA	NA	NA
Total	\$7,447,000,000	\$15,097,000,000	\$12,925,200,909	\$9,698,200,909

18 60. This estimate of damages incorporates Opendorse's projections about future growth of NIL
19 payments. For the school years 2016-17, 2017-18, and 2018-19, actual NIL payments college
20 athletes received in 2021-22, 2022-23, and 2023-24 are assumed. For 2019-20 and 2020-2021,
21 Opendorse's 2024-25 and 2025-26 projections are used, adjusted appropriately. For the remaining

22 ⁴⁴ Note that by scaling by Power 5 revenue, I am inherently accounting for inflation, which is
23 one component of increasing NCAA Power 5 revenue. Revenue for Power 5 schools are
24 extrapolated from Dr. Rascher's Exhibit 25 using his assumed 4% growth rate for revenues to
determine revenues before 2025-26.

25 ⁴⁵ OpenDorse, "NIL AT 3: The Annual Opendorse Report" (2023). Accessed on November 4,
26 2024. Available at <https://biz.opendorse.com/blog/nil-3-opendorse-report/>.

27 ⁴⁶ For details of calculation, see Appendix B.2.

three years covered by the settlement damage classes, we assume constant NIL payments, which is conservative. This approach generates total payments to college athletes of \$12.9 billion for 2016-24.

61. College athletes therefore suffered damages of the difference between what they could have earned, \$12.9 billion, and what they did earn, \$3.2 billion, which amounts to \$9.7 billion. This damages estimate is 231% more than Dr. Rascher's estimate. Even if this damages estimate were deflated by 67.4%, as Dr. Rascher's estimates, it would amount to an additional \$6.5B for college athletes.

Table 2. Comparison of damages estimate between Dr. Rascher and my estimate

	Rascher	My estimate
Damages Estimate	\$2,933,000,000	\$9,698,200,909
Incremental damages in excess of Rascher estimate	/	\$6,765,200,909
% increase in damages in excess of Rascher's estimate	/	231%
Settlement as a share of damages estimate	67.4%	67.4%
Implied settlement	\$1,976,000,000	\$6,536,587,413
Additional settlement above proposal	/	\$4,560,587,413
% Additional settlement above proposal	/	231%

B. DR. RASCHER'S ATHLETIC SERVICES DAMAGES ESTIMATE IS BASED ON A FLAWED UNDERSTANDING OF GIA PAYMENTS

62. Dr. Rascher calculates athletic services damages is predicated on GIA constituting compensation to college athletes. As described above, this is flawed and diminishes his damages estimate significantly.

I declare that, to the best of my knowledge and belief: (a) the statements of fact in this report are true and correct; (b) the reported analyses, opinions and conclusions are my personal, unbiased and professional analyses, opinions and conclusions; (c) I have no personal interest or bias with respect to the parties involved; and (d) my compensation is not contingent on an action or event resulting from the analyses, conclusions or opinions of this report.

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4 Signed on this 2nd day of December, 2024 in Boston
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APPENDIX A

Dr. Michael Cragg is an expert in antitrust, complex damages, and finance

Dr. Cragg has focused on industrial organization and finance dating to when he taught at Columbia's and UCLA's economics departments and schools of business. He speaks and publishes regularly on competition, corporate finance and valuation.

Dr. Cragg has testified and consulted on high profile matters throughout his career. In the last several years, the American Antitrust Institute and Global Competition Review recognized the Blue Cross Blue Shield MDL, US Airways v Sabre, and Epic v Google case teams he led for their contributions to antitrust enforcement. He was the lead expert responsible for successfully rebutting Chairman Bernanke, and Secretaries Paulsen and Geithner in the AIG takings case. His recent antitrust testifying experiences include the LIBOR MDL, Rumble v Google, Alivecor v Apple, and Epic v Apple. He has testified on behalf of the government and taxpayers on intercompany financings, joint ventures and partnerships. He has experience across a variety of industries including electricity, oil and gas, platforms, telecommunications, sports and entertainment, high tech and software, airlines, pharmaceuticals, medical devices, health insurance, health care providers, payment systems, and financial and commodity markets. Dr. Cragg has testified in several Commonwealth jurisdictions including the UK, Ireland, Canada and Australia.

Prior to joining Keystone, Dr. Cragg was Chairman of The Brattle Group, a founding member of Cambridge Finance Partners, the founding partner for the Boston office of Bates White & Ballentine, and a Vice President at Analysis Group. Dr. Cragg has served as a management consultant at Cambridge Finance Partners, A.T. Kearney, and Integral.

Dr. Cragg began his career as a professor at Columbia University and UCLA's Anderson School of Management, where he taught courses in health care economics, industrial organization, and econometrics. He has served on the faculty of the World Bank Training Programs, held a NIH Fellowship at RAND, and was a senior research economist at the Milken Institute in Santa Monica, CA. Dr. Cragg is currently a director and former Chairman of the Cambridge Montessori School, and a former director of the Waterville Valley Academy and the Children's Advocacy Center of Suffolk County. He is currently a director of DemandQ, Cellucomp and Scoot.

EDUCATION

- Ph.D., Economics, Stanford University, 1993. Concentration in industrial organization, econometrics, and public finance.
- M.A., University of British Columbia, 1988. Concentration in industrial organization.
- B.S.E., magna cum laude, Princeton University, 1986.

AREAS OF EXPERTISE

- Antitrust
- Complex damages and class certification
- Technology and intellectual property
- Transfer Pricing
- Financial markets
- Corporate Finance

- Technology, platforms, and software
- Financial markets
- Pharmaceuticals and medical devices
- Commodities
- Manufacturing
- Sports and entertainment

PROFESSIONAL WORK EXPERIENCE

- Senior Partner, Keystone Strategy, 2023 – present
- Board Member, Cellucomp 2021 – present
- Board Member, DemandQ 2019 – present
- Board of Directors, The Brattle Group 2014 – 2022
- Principal, The Brattle Group, 2008 – 2023
- Chairman, The Brattle Group 2016-2021
- Chief Operating Officer, The Brattle Group, 2011 – 2013
- Founding Partner, Cambridge Finance Partners, LLC, 2001 – 2008
- Partner, Bates White & Ballentine, LLC, 2000 – 2001
- Vice President, Analysis Group/Economics, 1999 - 2000
- Manager, A.T. Kearney, 1998 – 1999
- Visiting Professor, Anderson School of Management, UCLA, 1997
- Senior Research Associate, Milken Institute, 1997 – 1998
- Consultant, RAND, 1996 – 1997
- Assistant Professor, Economics Department, Columbia University 1993 – 1998

TESTIMONY

Qualified in federal court as an expert on antitrust, transfer pricing, valuation, microeconomics, financial markets, corporate finance, public finance, structured finance, industrial organization, insurance, renewable energy, pharmaceutical markets, medical devices, and intellectual property.

Aventis Inc. and Subsidiaries v Commissioner of Internal Revenue (2024, report)
United States Tax Court No. 11832-20

In re: LIBOR-Based Financial Instruments Antitrust Litigation (2024, report, rebuttal report, deposition, surrebutal)
United States District Court for the Southern District of New York

Rumble v Google (2024, report and rebuttal)
United States District Court for the Northern District of California

Susquehanna International Group v Commissioner of Internal Revenue (2024 trial testimony)
United States Tax Court

Axos v Nano (2024 report, rebuttal and deposition)
United States District Court for the Central District of California

Jessie Benton et al. v UMB Bank, N.A. (2022 report, 2023 trial)

Circuit Court of Jackson County, Missouri, Probate Division

AliveCor v Apple (2023 report, rebuttal report, deposition)
United States District Court for the Northern District of California

AliveCor v Apple (2022 declaration)
International Trade Commission

Ronald Anderson et al. v Commissioner of Internal Revenue (2022 report)
United States Tax Court

Viamedia, Inc. v Comcast Corp., Comcast Spotlight (2022 report, rebuttal report, deposition)
United States District Court for the Northern District of Illinois Eastern Division

MUFG Union Bank v Axos Bank (2020 – 2022, report, rebuttal report, deposition and jury trial)
Supreme Court of New York

Western Digital v. Commissioner of Internal Revenue (2021 direct and rebuttal testimony)
United States Tax Court

Cox v Comcast (2021 report and testimony)
Delaware Chancery Court

Epic Games v Apple (2021 report, rebuttal report, deposition and testimony)
United States District Court for the Northern District of California

Amici Curiae Economists in Support of Petitioners, National Football League v. Ninth Inning (2020 brief)
United States Supreme Court

Amici Curiae Economists in Support of Petitioners, National College Athletic Association v. Shawne Alston et al, U.S. Supreme Court (2020 brief)
United States Supreme Court

Aetna v Mednax (2020 report, rebuttal report, deposition)
United States District Court for the Eastern District of Pennsylvania

Travelport, Limited, Anthony Hynes et al. v Wex Inc. (2020 testimony)
United Kingdom High Court

Facebook Inc. v. Commissioner of Internal Revenue (2020 testimony)
United States Tax Court Docket No. 21959-16

Expert in Confidential JAMS Arbitration involving consumer packaged goods market (2019-2020, report, deposition, declaration)

Cross Refined Coal, LLC v. Commissioner of Internal Revenue (2019 report, rebuttal report, deposition, and trial testimony)
United States Tax Court Docket No. 019502-17

R.O.P. Aviation v Director, Division of Taxation (2019, report and rebuttal report)
Tax Court of New Jersey

The Coca-Cola Company v. Commissioner of Internal Revenue (2017-2018 report, rebuttal report, deposition and trial testimony)

John Michael “Ozzy” Osbourne et al v Anschutz Entertainment Group Inc, AEG Presents (2018 report)
United States District Court for the Central District of California, Western Division

In Re: Gawker Media et al. (2016 report)
United States Bankruptcy Court

AIG v. The United States (2010-2017 declarations, report, rebuttal reports, deposition)
United States District Court for the Southern District of New York. No. 09 Civ. 1871 (LLS)

Guidant et al. v. Commissioner of Internal Revenue (2016 direct and rebuttal testimony)
United States Tax Court Docket Nos.: 5989-11, 5990-11, 10985-11, 26876-11, 5501-12, 5502-12

Wells Fargo & Co. v. The United States (2011-2016, declaration, report, rebuttal reports, deposition, jury trial testimony)
United States District Court for the District of Minnesota Civil No. 09-cv-02764-PJS-TNL

General Electric Company & Subsidiaries v. United States of America (2016 report, rebuttal report, declaration, deposition)
United States District Court of Connecticut Civil Action No. 3:14-cv-00190-JAM

Oliver Wyman v John Eilson (2016, report, rebuttal report, deposition)
United State District Court for the Southern District of New York

Eaton Corporation and Subsidiaries v. Commissioner of Internal Revenue (2015 direct and rebuttal testimony)
United States Tax Court Docket No.: 5576-12

RERI Holdings I, LLC, Jeff Blau Tax Matters Partner v. Commissioner of Internal Revenue (2015 direct and rebuttal testimony)
United States Tax Court Docket No.: 9324-08

Starr International v. United States of America (2014 report, rebuttal report, deposition, trial testimony)
United States Court of Federal Claims Case No. 11-00779(TCW)(Fed. Cl.)

LFG Liquidation Trust v. Ernst & Young, LLP, (2014 report, rebuttal report, deposition, testimony)
CPR Non-Administered Arbitration (confidential arbitration)

Kearney Partners Fund, LLC, v. United States of America (2011-2013 report, rebuttal report, deposition, jury trial testimony)
United States District Court for the Middle District of Florida, Fort Myers Division Case No.: 2:10-cv-153- FtM-37CM

Buyuk LLC, et al., v. Commissioner of Internal Revenue (2012-2013, direct and rebuttal testimony)
United States Tax Court Docket Nos.: 11051-10, 6853-12

United States of America v. Fesum Ogbazion, et al., (2013, report, supplemental report, deposition, jury trial testimony)

United States District Court for the Southern District of Ohio Western Division Case No.: 3:12-cv- 95

Salem Financial, Inc., v. The United States (2011-2013, affidavit, report, rebuttal reports, deposition, trial testimony)

United States Court of Federal Claims, Case No.: 10-192 T

Lehman Brothers Holdings, Inc. and Official Committee of Unsecured Creditors of Lehman Brothers Holdings, Inc., et al., v. United States of America (2012-2013, report, rebuttal report, supplemental report, surrebuttal report, deposition)

United States District Court for the Southern District of New York 10 Civ. 6200 (RMB)

Meda AB, v. 3M Company, 3M Innovative Properties Company, and Riker Laboratories, Inc. (2012-2013, report, rebuttal report, deposition, jury trial testimony)

United States District Court for the Southern District of New York Case No.: 11 Civ. 412

Treasury Holdings et al., v. National Asset Management Agency et al., (2012, direct and rebuttal testimony)

The High Court, Judicial Review, Ireland, 2012 No. 55 JR

Santander Holdings USA, Inc., et al., v. United States of America (2012-2014, affidavit, report, rebuttal reports, deposition)

United States District Court for the District of Massachusetts, Case No.: 09-cv-11043

Bank of New York Mellon Corp., v. Commissioner of Internal Revenue (2011-2012, direct and testimony)

United States Tax Court, Docket No. 26683-09

Ambac et al. v. United States of America (2011, report and rebuttal report, deposition)

United States Bankruptcy Court for the Southern District of New York

Chapter 11 Case No. 10-15973 (SCC), Adv. Pro. No. 10-4210 (SCC)

AD Global FX, et al. v. United States of America (2011, report, deposition)

United States District Court for the Southern District of New York Case Nos.: 05 Civ. 0223 (RJH); 05 Civ. 2598 (RJH); 05 Civ. 6261 (RJH)

United Air Lines, Inc. and American Airlines, Inc. v. City of Chicago (2011, disclosure)

In the Circuit Court of Cook County, Illinois, Chancery Division Case no. 11 CH2081

Pritired 1, LLC, Principal Life Insurance et al. v United States of America (2009-2010, report, rebuttal report, deposition, trial testimony)

United States District Court for the Southern District of Iowa, Central Division, Civil No. 4:08-CV-00082

Dellway et al., v. National Asset Management Agency, Ireland and the Attorney General, (2010, report and rebuttal testimony)

The Supreme Court and the High Court, Commercial, Ireland, 2010 No. 909 JR

In re: Maluhia One, LLC, Maluhia Eight, LLC and Maluhia Nine, LLC (2010, disclosure, trial testimony)

In the United States Bankruptcy Court for the Northern District of Texas, Dallas Division Case Nos.: 10-30987-hdh-11; 10-30986-hdh-11; 10-30988-hdh-11

Highroads, Inc. v. Hewitt Associates, LLC (2010, report, rebuttal report)

Suffolk, SS. Superior Court, Commonwealth of Massachusetts Civil Action No. 10-0156-BLS1

Eltek et al. v. Lehman Brothers et al. (2010, report)

Arbitration Institute of Stockholm Chamber of Commerce Arbitration V (030/2009); Arbitration V (111/2009)

Joseph E. Stiglitz v. Rita M. Bank (2010, report)

United States District Court for the District of Columbia, No. 05-1826RJL

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APPENDIX B

APPENDIX B**1) Details on cost differences to supply education to college athletes vs. non-college athletes.**

1. The analysis of cost differences to supply education to college athletes vs. non-college athletes discussed in Section III. A. (1) combines two sources of data: cost data by field from the Hemelt et al. (2021) paper and NCAA data on the distribution of fields studied by college athletes and the general student body.¹

2. Hemelt et al. (2021) report the relative cost of supply education across different fields such as nursing, education, and history. They use the cost to supply education for an English major as their benchmark and report the different costs in logarithms in Table 2 of their paper. In Table A1, I convert logarithms to an index where 100 is the cost to supply an English degree (a field with an index of 125 would then be interpreted as being 25% more costly than English). I also map the fields from Hemelt et al.'s study to the names of fields referenced by the NCAA.

Table A1. Cost differences by field of study

Data from Hemelt et al. (2021)²		Conversions	
Field	Log cost difference	Cost index (English = 100)	Corresponding field in NCAA categorization
Electrical Engineering	0.64	190	STEM
Mechanical Engineering	0.48	162	STEM
Nursing	0.46	158	Health Professions and Related
Education	0.32	138	Education
Fine/Studio Arts	0.22	125	Liberal Arts, General Studies & Humanities
Accounting	0.2	122	Business
Computer/Info Sciences	0.19	121	STEM
Physics	0.18	120	STEM

¹ See Steven Hemelt *et al.*, “Why is Math Cheaper Than English? Understanding Cost Differences in Higher Education,” 39 *Journal of Labor Economics* (2021), 397-435; “DI Student-Athletes Degrees by Sport, 2021-2022,” *NCAA*, accessed November 7, 2024, <https://www.ncaa.org/sports/2018/5/15/division-i-diploma-dashboard.aspx>.

² See Table 2 of See Steven Hemelt *et al.*, “Why is Math Cheaper Than English? Understanding Cost Differences in Higher Education,” 39 *Journal of Labor Economics* (2021) at 415.

Data from Hemelt et al. (2021) ²		Conversions	
Field	Log cost difference	Cost index (English = 100)	Corresponding field in NCAA categorization
Biz	0.12		
Admin/Mgmt/Operations		113	Business
Chemistry	0.04	104	STEM
Biology	0	100	STEM
English	reference		Liberal Arts, General Studies & Humanities
		100	
Poli Sci/Government	-0.03	97	Social Science
Economics	-0.08	92	Social Science
History	-0.12		Liberal Arts, General Studies & Humanities
		89	
Psychology	-0.15	86	Psychology
Comm/Media Studies	-0.16	85	Communication
Philosophy	-0.21		Liberal Arts, General Studies & Humanities
		81	
Sociology	-0.22	80	Social Science
Mathematics	-0.29	75	STEM

3. To compare the costs for colleges to provide education for student athletes with the cost to provide education to the average student, I take three steps. First, I average the cost index from Table A1 by field (e.g., STEM, Business). Second, I use data from the NCAA on the distribution of field for the entire student body compared to D1 student athletes, broken out by sport to calculate a cost index that accounts for the distribution of fields the students take. Third, I compare the cost index between the general student body and student athletes in different sports. These calculations are summarized in Table A2.

Table A2. Relative cost of providing education to the general student body vs. college athletes by sport

Summary	Student body		Football		Men's Basketball (%)		Women's Basketball (%)	
	Avg cost (indexed to English=100)	Distribution of degrees earned	Avg cost x distribution	Distribution of degrees earned	Avg cost x distribution	Distribution of degrees earned	Avg cost x distribution	Distribution of degrees earned
Health Professions and Related Education	158.4	10%	15.84	4%	6.34	3%	4.75	9%
STEM	137.7	4%	5.51	3%	4.13	2%	2.75	4%
Business	124.4	28%	34.83	9%	11.20	5%	6.22	10%
Liberal Arts, General Studies & Humanities	117.4	18%	21.14	24%	28.19	23%	27.01	18%
Social Science	98.6	9%	8.87	9%	8.87	14%	13.80	9%
Psychology	89.9	14%	12.58	20%	17.97	17%	15.28	13%
Communication	86.1	6%	5.16	3%	2.58	5%	4.30	11%
	85.2	5%	4.26	11%	9.37	14%	11.93	14%
Total cost index			108.201		88.6532		86.0528	95.2993
Cost index relative to student body					-18%		-20%	-12%

Sources: Average cost by degree type is the simple average of the cost index from Table A1. The distribution of degrees earned is from the NCAA's report on D1 Student Athletes by Degree and Sport (<https://www.ncaa.org/sports/2018/5/15/division-i-diploma-dashboard.aspx>)

2) Details on adjustments made to NIL payments.

Table B3. Details of calculation of damages

	[1]	[2]	[3]	[4]	[5]	[6]
Year	NIL Payments	Counterfactual NIL Payment (Unadjusted)	Power 5 Pool Revenue (projected)	Power 5 revenue adjustment factor	Counterfactual NIL Payment (Adjusted)	Damages
2016-17	\$0	\$917,000,000	\$5,153,473,705	0.82	\$753,707,157	\$753,707,157
2017-18	\$0	\$1,140,000,000	\$5,359,612,654	0.82	\$936,996,902	\$936,996,902
2018-19	\$0	\$1,170,000,000	\$5,573,997,160	0.82	\$961,654,715	\$961,654,715
2019-20	\$0	\$1,670,000,000	\$5,796,957,046	0.82	\$1,372,618,268	\$1,372,618,268
2020-21	\$0	\$2,550,000,000	\$6,028,835,328	0.82	\$2,095,914,122	\$2,095,914,122
2021-22	\$917,000,000	\$2,550,000,000	\$6,269,988,741	0.85	\$2,179,750,687	\$1,262,750,687
2022-23	\$1,140,000,000	\$2,550,000,000	\$6,520,788,291	0.89	\$2,266,940,715	\$1,126,940,715
2023-24	\$1,170,000,000	\$2,550,000,000	\$6,781,619,822	0.92	\$2,357,618,343	\$1,187,618,343
2024-25	\$1,670,000,000	\$2,550,000,000	\$7,052,884,615	0.96	NA	NA
2025-26	\$2,550,000,000	NA	\$7,335,000,000	1.00	NA	NA
Total	\$7,447,000,000	\$15,097,000,000	\$61,873,157,363		\$12,925,200,909	\$9,698,200,909

Notes:

[1] NIL Payments from OpenDorse actual and estimated payments.³

[2] Counterfactual NIL payments (unadjusted) are actual NIL payments shifted back by five years and assuming no growth after the last available projection.

[3] For year 2025-26, Power 5 Pool Revenue (\$7,335,000,000) is from Exhibit 25 of Dr. Rascher's report. For previous years, I follow Dr. Rascher's assumption of 4% annual revenue growth and extrapolate backwards (i.e., 2024-25 estimated revenue is 2025-26

³ OpenDorse, "NIL AT 3: The Annual Opendorse Report" (2023). Accessed on November 4, 2024. Available at <https://biz.opendorse.com/blog/nil-3-opendorse-report/>

estimated revenue, \$7.355B, reduced by 4% to \$7.053B).

[4] The Power 5 revenue adjustment factors is the ratio of Power 5 Pool Revenue between years where NIL payments match counterfactual NIL payments (unadjusted). For instance, for 2016-17, counterfactual NIL payments are \$917M, which in reality were earned in 2021-22. Therefore the Power 5 revenue adjustment factor is the ratio of Power 5 Pool revenue in 2016-17, \$5.135B, to 2021-22, \$6.270B, or 0.82.

$$[5] = [2] * [4]$$

$$[6] = [5] - [1]$$